

FIG. 3

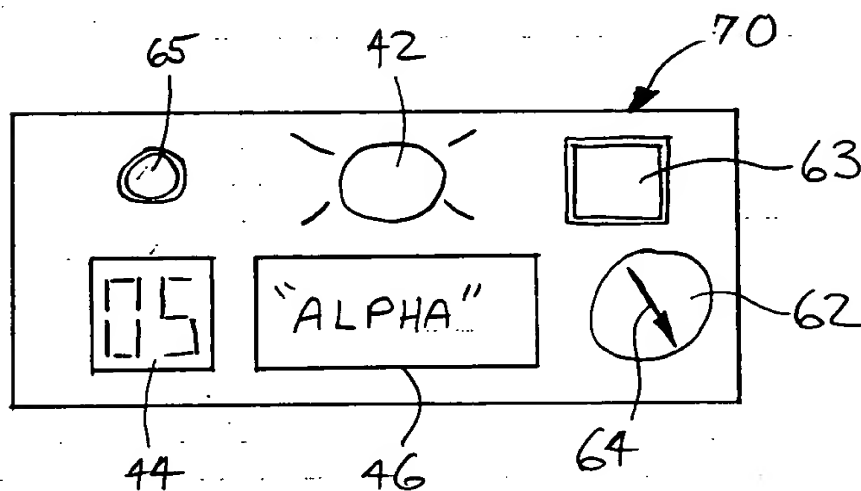
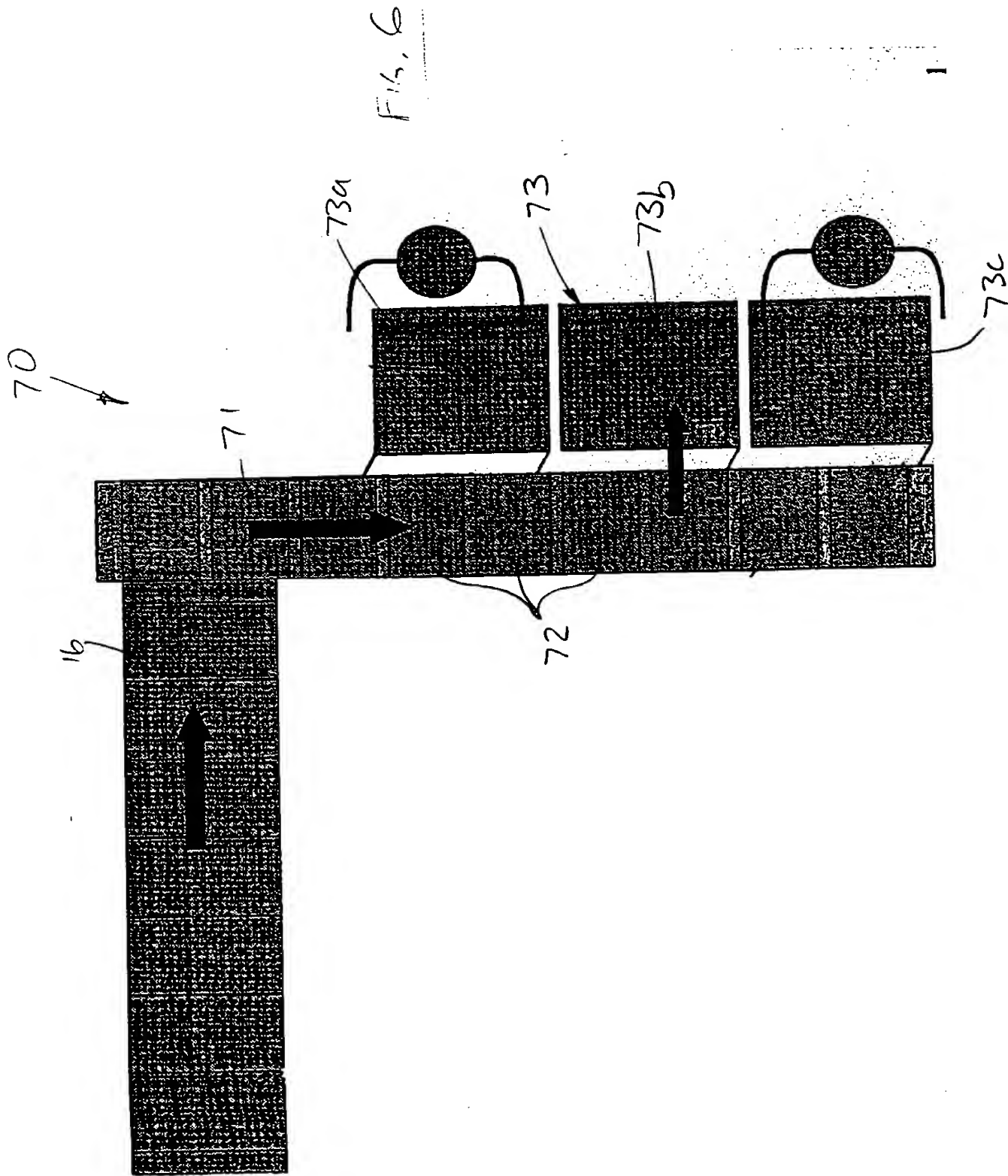


FIG. 5

FIG. 4.



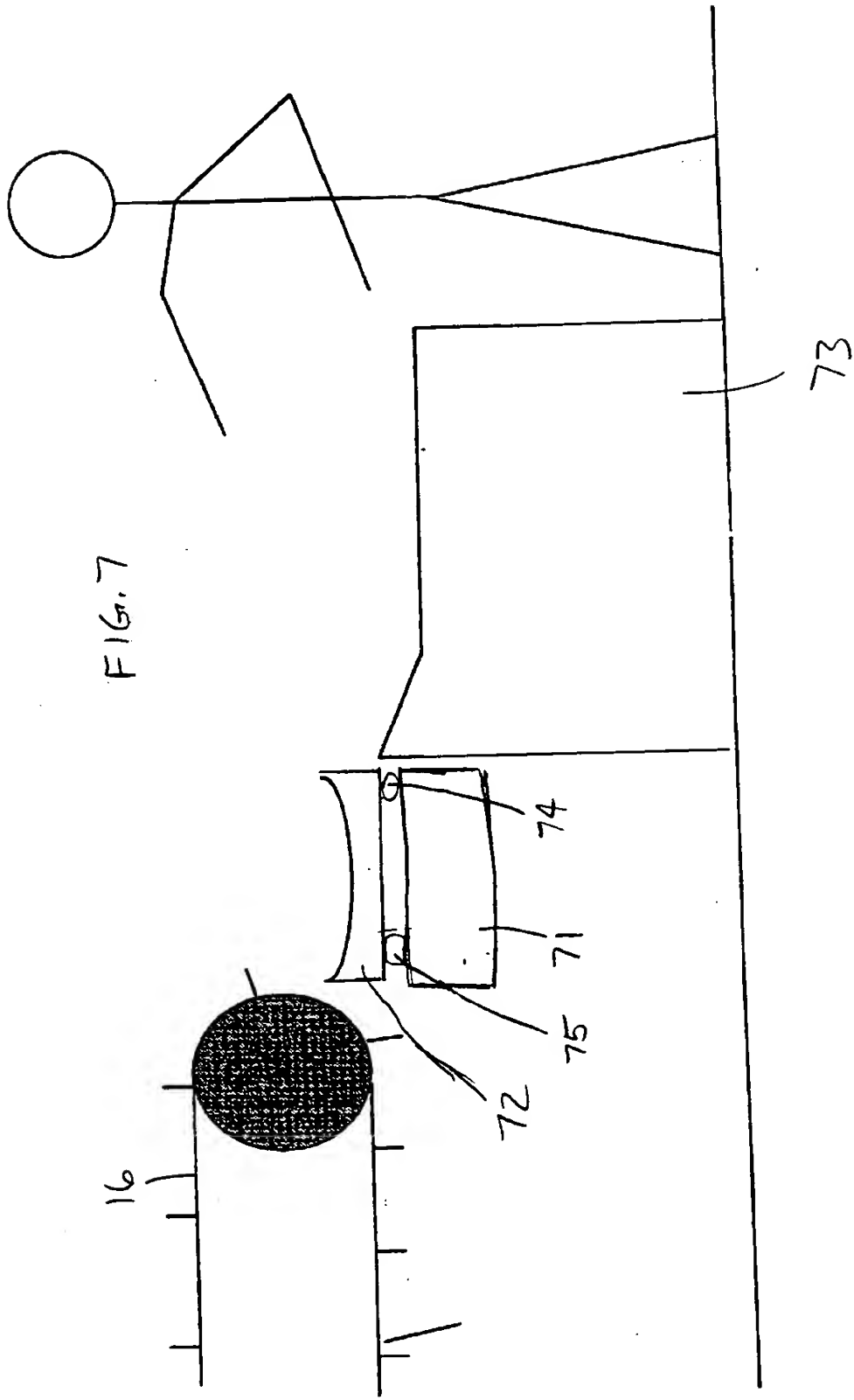
1. *Chlorophyll a* (Chl a) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue-violet and red-orange regions of the visible spectrum. Chl a is essential for the light-dependent reactions of photosynthesis, where it converts light energy into chemical energy.

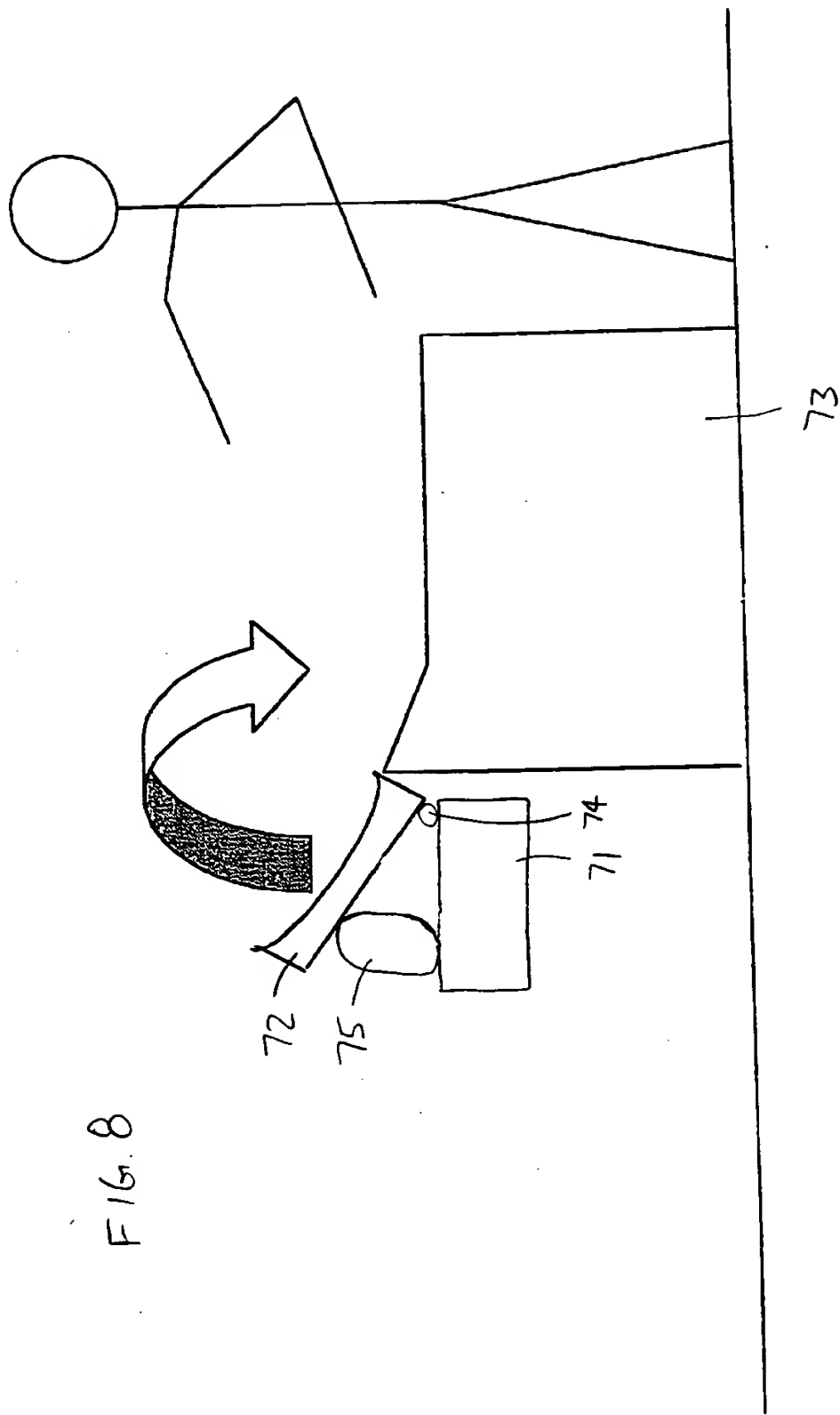
2. *Chlorophyll b* (Chl b) is an accessory pigment found in green plants and algae. It is a yellow-green pigment that absorbs light energy in the blue and orange-red regions. Chl b transfers the absorbed energy to Chl a, which then uses it for photosynthesis.

3. *Carotenoids* are a group of pigments that include carotenes and xanthophylls. They are responsible for the yellow, orange, and red colors seen in autumn foliage. Carotenoids absorb light energy in the blue and green regions and transfer it to Chl a. They also play a role in protecting the photosynthetic apparatus from damage by excess light energy.

4. *Xanthophylls* are a subset of carotenoids that are yellow in color. They are involved in the light-harvesting process and also in the xanthophyll cycle, which helps protect the plant from photodamage by dissipating excess energy as heat.

5. *Anthocyanins* are water-soluble pigments that give plants red, purple, and blue colors. They are not directly involved in photosynthesis but can protect the plant from damage by absorbing excess light energy and acting as antioxidants.





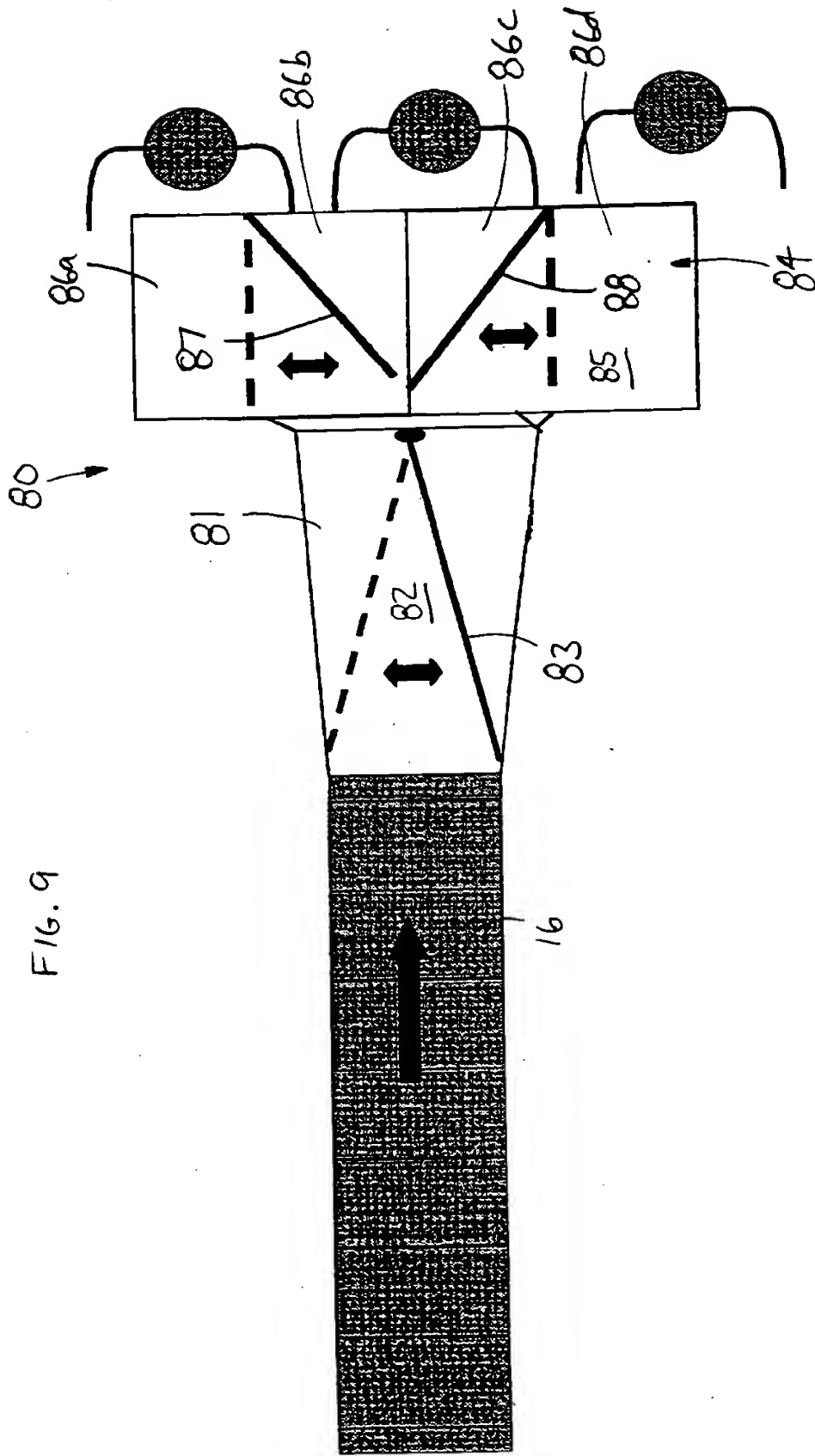


FIG. 10

